

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. - 4. (Cancelled).

5. (Currently Amended): A liquid crystal display device using a hologram, characterized in that a liquid crystal display element is provided on a side thereof with a diffuse reflection type hologram itself capable of diffusing and reflecting light of selected wavelengths incident from a specific direction only in a direction defined as a viewing region, wherein said hologram has a different optical function with respect to different respective wavelengths.

6. (Original): The liquid crystal display device using a hologram according to [[Claim]] claim 5, characterized in that a diffuse reflection plate or a reflector plate is located on the back surface side of the diffuse reflection type hologram.

7. - 8. (Cancelled).

9 (Currently Amended): The liquid crystal display device using a hologram according to [[Claim]] claim 5, characterized in that when a TN liquid crystal cell is used as the liquid crystal display element, the diffuse reflection type hologram enables light incident thereon from above and at an angle of about 20° with respect to a normal line thereof to be diffused and reflected within a range defined by an upward angle about 10°, a downward angle of about 40°, and breadth-wise angles of about 60°.

10. (Currently Amended): The liquid crystal display device using a hologram according to [[Claim]] claim 5, characterized in that when an STN liquid crystal cell is used as the liquid

crystal display element, the diffuse reflection type hologram enables light incident thereon from above and at an angle of about 20° with respect to a normal line thereof to be diffused and reflected within a range defined by an upward angle about 20°, a downward angle of about 30°, and breadth-wise angles of about 30°.

11. (Currently Amended): The liquid crystal display device using a hologram according to [[Claim]] claim 10, characterized in that a self-luminous type backlight unit is located on the back surface side of the diffuse reflection type hologram.

12. - 22. (Cancelled).

23. (Previously Presented): The liquid crystal display device using a hologram according to claim 6, characterized in that when a TN liquid crystal cell is used as the liquid crystal display element, the diffuse reflection type hologram enables light incident thereon from above and at an angle of about 20° with respect to a normal line thereof to be diffused and reflected within a range defined by an upward angle of about 10°, a downward angle of about 40°, and breadth-wise angles of about 60°.

24. (Previously Presented): The liquid crystal display device using a hologram according to claim 6, characterized in that when an STN liquid crystal cell is used as the liquid crystal display element, the diffuse reflection type hologram enables light incident thereof from above and at an angle of about 20° with respect to a normal line thereof to be diffused and reflected within a range defined by an upward angle of about 20°, a downward angle of about 30°, and breadth-wise angles of about 30°.

25. (Previously Presented): The liquid crystal display device using a hologram according to claim 24, characterized in that a self-luminous type backlight unit is located on the back surface side of the diffuse reflection type hologram.

26. - 30. (Cancelled).

31. (Previously Presented): The liquid crystal display device of claim 5, characterized in that said diffuse reflection type hologram is a hologram obtained by

fabricating one transmission type hologram for each wavelength,

fabricating from the transmission type hologram fabricated for each wavelength one reflection type hologram for each wavelength, and

making a replica of said reflection type hologram by interference of diffracted light and incident light in a photosensitive film.

32. (Previously Presented): A liquid crystal display device of claim 6, characterized in that a polarizing plate, a hologram, a color tuning film and a reflecting layer are laminated together in order from a liquid crystal side.

33. (Previously Presented): A liquid crystal display device of claim 32, characterized in that said hologram is a color hologram with interference fringes recorded thereon in such a way as to diffract a plurality of wavelengths including red, green and blue wavelengths.

34. (Previously Presented): A liquid crystal display device of claim 5, wherein said hologram has high wavelength selectivity.

35. (Previously Presented): A liquid crystal display device using a hologram, characterized in that a liquid crystal display element is provided on a side thereof with a diffuse reflection type hologram itself capable of diffusing and reflecting light of selected wavelengths

incident from a specific direction only in a direction defined as a viewing region, wherein said hologram has a different optical function with respect to different respective wavelengths,

characterized in that when a TN liquid crystal cell is used as the liquid crystal display element, the diffuse reflection type hologram enables diffuse reflection to occur within a range wherein the contrast of the liquid crystal cell is at least 2.

36. (Currently Amended): A liquid crystal display device using a hologram, characterized in that a liquid crystal display element is provided on a side thereof with a diffuse reflection type hologram itself capable of diffusing and reflecting light of selected wavelengths incident from a specific direction only in a direction defined as a viewing region, wherein said hologram has a different optical function with respect to different respective wavelengths,

characterized in that when an ~~[[TN]]~~ STN liquid crystal cell is used as the liquid crystal display element, the diffuse reflection type hologram enables diffuse reflection to occur within a range wherein the contrast of the liquid crystal cell is at least 2.

37. (Previously Presented): The liquid crystal display device using a hologram according to Claim 35 or 36, characterized in that a diffuse reflection plate or a reflector plate is located on the back surface side of the diffuse reflection type hologram.

38. (Previously Presented): The liquid crystal display device of claim 5, wherein the hologram comprises a volume phase hologram.